



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0498; Project Identifier 2019-SW-072-AD; Amendment 39-21722; AD 2021-19-04]

RIN 2120-AA64

Airworthiness Directives; Hélicoptères Guimbal Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Hélicoptères Guimbal Model Cabri G2 helicopters with any metal bushing installed on the main rotor (M/R) swashplate guide bellcrank. This AD was prompted by a report of cracks discovered on the M/R scissor link during scheduled maintenance on several helicopters. This AD requires removing all metal bushings from service, visually inspecting the lug bore area and depending on the inspection results, removing certain parts from service and installing certain part-numbered plastic bushings. This AD also prohibits installing any metal bushing on any helicopter. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Hélicoptères Guimbal, Basile Ginel, 1070, rue du Lieutenant Parayre, Aéroport d'Aix-en-Provence, 13290 Les Milles, France; telephone 33-04-42-39-10-88; email basile.ginel@guimbal.com; web <https://www.guimbal.com>. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for

and locating Docket No. FAA-2021-0498; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Hélicoptères Guimbal (HG) Model Cabri G2 helicopters, certificated in any category, with any metal bushings installed on the main rotor (M/R) swashplate guide bellcrank and without plastic bushing part number HG22-1001 or HG modification 16-009. The NPRM published in the *Federal Register* on July 9, 2021 (86 FR 36241). In the NPRM, the FAA proposed to require within 50 hours time-in-service or 2 months, whichever occurs first after the effective date of this AD, disconnecting the bellcrank from the swashplate guide, removing each bolt and using a certain tool, removing certain parts from service. The NPRM also proposed to require visually inspecting the lug bore area for corrosion and cracks and depending on the inspection results, removing certain parts from service, or repairing the area using an FAA-approved method, installing certain part-numbered plastic bushings, coating the area with a compound, reinstalling certain parts, applying a specified torque, and installing cotter pins. The NPRM was prompted by EASA AD 2019-0185, dated July 30, 2019 (EASA AD 2019-0185), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Hélicoptères Guimbal Model Cabri G2 helicopters. EASA advises that during scheduled maintenance on several helicopters, cracks were found on the M/R scissor link due to corrosion. EASA

states this corrosion was caused by stress induced by the mounting of the metal bushing inside the lug hole. EASA further states metal bushings are also installed on the M/R swashplate guide bellcrank, where similar cracking may occur. This condition, if not addressed, could result in failure of the M/R swashplate guide bellcrank and reduced control of the helicopter.

Accordingly, EASA AD 2019-0185 requires replacing any part-numbered metal bushing with plastic bushing part number (P/N) HG22-1001. EASA AD 2019-0185 also prohibits installing any part-numbered metal bushing on the M/R swashplate guide bellcrank other than P/N HG22-1001 on any helicopter.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information

The FAA reviewed Guimbal Service Bulletin SB 17-003, Revision D, dated August 27, 2019 (SB 17-003 Rev D). This service information specifies disconnecting the bellcrank installed on the swashplate guide by removing the bolts that connect the bellcrank to the swashplate guide, removing any existing bushings, and visually inspecting the lug bore area for corrosion or cracks. This service information also specifies if there is any corrosion or cracks, reporting the information to HG support, installing the new plastic bushings, reinstalling the bellcrank, applying a specified torque, and installing cotter pins.

Other Related Service Information

The FAA also reviewed Guimbal Service Bulletin SB 17-003, Revision C, dated July 12, 2019 (SB 17-003 Rev C). SB 17-003 Rev C specifies the same procedures as SB 17-003 Rev D, except SB 17-003 Rev D updates the reference to EASA AD 2019-0185.

Differences Between this AD and EASA AD 2019-0185

EASA AD 2019-0185 applies to all Model Cabri G2 helicopters, whereas this AD only applies to Model Cabri G2 helicopters with any metal bushings installed and without HG modification 16-009. The service information required by the EASA AD requires contacting Hélicoptères Guimbal for corrective actions when corrosion or cracks are found in the lug bore area whereas this AD requires removing the swashplate guide from service or repairing it using an FAA-approved method.

Costs of Compliance

The FAA estimates that this AD affects 32 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Disconnecting the bellcrank, removing each metal bushing and visually inspecting for corrosion and cracks would take about 0.5 work-hours for an estimated cost of \$43 per inspection cycle.

Installing each plastic bushing, coating with compound, re-installing the bellcrank, and applying torque would take about 0.5 work-hours and parts would cost about \$10 for an estimated cost of \$53 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-19-04 Hélicoptères Guimbal: Amendment 39-21722; Docket No. FAA-2021-0498; Project Identifier 2019-SW-072-AD.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Hélicoptères Guimbal (HG) Model Cabri G2 helicopters, certificated in any category, with any metal bushings installed on the main rotor (M/R) swashplate guide bellcrank and without plastic bushing part number HG22-1001 or HG modification 16-009.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6700, Rotorcraft Flight Control.

(e) Unsafe Condition

This AD was prompted by a report of cracks on the M/R scissor link. The FAA is issuing this AD to replace the metal bushings installed on the M/R swashplate guide bellcrank with plastic bushings. The unsafe condition, if not addressed, could result in failure of the M/R swashplate guide bellcrank and reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 50 hours time-in-service (TIS) or 2 months, whichever occurs first after the effective date of this AD:

(i) Disconnect the bellcrank from the swashplate guide by removing each bolt and, ensuring that the bellcrank remains attached to the flight control rod, remove each metal bushing from service using a bushing disassembly tool.

(ii) Visually inspect the lug bore area for any corrosion and any cracks. If there is any corrosion or any cracks, before further flight, remove the swashplate guide from service or repair it using an FAA-approved method. If there is no corrosion and no cracks, install plastic bushing part number HG22-1001, coat plastic bushing with isolation compound, re-install the bellcrank, torque each bolt to 7.5 Nm-9 Nm (5.5 ft-lbs-6.6 ft-lbs), and install cotter pins.

(2) As of the effective date of this AD, do not install any metal bushing on any helicopter.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

(2) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2019-0185, dated July 30, 2019. You may view the EASA AD on the internet at <https://www.regulations.gov> in Docket No. FAA-2021-0498.

(j) Material Incorporated by Reference

None.

Issued on August 30, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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